

XX Claim 1; Page 11; 17pp; English.
 PS
 CC The present sequence is a consensus sequence that was constructed
 CC from the highly conserved N-terminal region of fimbrial proteins from
 CC CFA/I, CS1, CS2, CS4, CS17 and PCF 0166, and was shown to generate
 CC antibodies against all members of the family. The consensus sequence
 CC also contains both B and T cell epitopes. It can be used to immunise
 CC against disease caused by enterotoxigenic E. coli of the family CS4-CFA/I.
 CC Also antibodies raised against the E. coli CS4-CFA/I family can be
 CC used as diagnostic reagents to identify antigens.
 CC
 XX Sequence 36 AA;
 SQ
 Query Match 100.0%; Score 173; DB 18; Length 36;
 Best Local Similarity 100.0%; Pred. No. 5,3e-18;
 Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 VEKNITVTASVDPPTIDLLQADGSLPSAVALTYSPA 36
 Db 1 VEKNITVTASVDPPTIDLLQADGSLPSAVALTYSPA 36
 RESULT 2
 AAM53307
 ID AAM53307 standard; peptide; 36 AA.
 XX
 AC AAM53307;
 XX
 DT 03-JUL-1998 (first entry)
 XX
 DE CS4-CFA/I family specific antibody responsive consensus peptide.
 XX
 KM Escherichia coli; CS4-CFA/I family; antibody; immunisation; ETEC;
 KM enterotoxigenic; immune response.
 XX
 OS Synthetic.
 OS Escherichia coli.
 XX
 PN WO9805348-A1.
 XX
 PD 12-FEB-1998.
 XX
 PF 01-AUG-1997; 97WO-US11476.
 XX
 PR 05-AUG-1996; 96US-0023145.
 PR 02-AUG-1996; 96US-0023076.
 XX
 PA (USSA) US DEPT OF THE ARMY.
 XX
 PI Cassels F, Loomis-Price L;
 PI WPI; 1998-145348/13.
 DR
 XX Peptide(s) responsive to antibodies against Escherichia coli
 XX CS4-CFA/I family proteins - are subunits of consensus peptide useful
 XX for immunisation, and consequent antibody compositions, useful in
 XX assays and treatment of infection
 XX
 PS Example 2; Page 6; 19pp; English.
 XX
 CC The present sequence represents a peptide responsive to antibodies
 CC against Escherichia coli CS4-CFA/I family proteins. The peptide and
 CC compositions containing such peptides are useful for immunisation to
 CC raise antibodies to organisms producing the CS4-CFA/I family of
 CC proteins. The CS4-CFA/I family belong to the enterotoxigenic (ETEC)
 CC class of Escherichia coli, one of five classes of E. coli causing
 CC diarrhoea. ETEC are the most common class and cause high infant
 CC mortality and illness in adult travellers in developing countries. The
 CC peptides are also useful to determine whether individual animals have
 CC antibodies to ETEC E. coli. The antibody compositions can be used in
 CC assays to detect organisms bearing the CS4-CFA/I family proteins, in
 CC which a culture of organisms is contacted with the composition for

CC sufficient time for interaction to occur, and the culture is examined
 CC to determine if a CS4-CFA/I family protein/antibody complex has formed.
 CC The antibody compositions can also be used to treat, or immunise a
 CC susceptible host against, illness arising from infection with bacteria
 CC bearing CS4-CFA/I family proteins, by administering a bacteria-
 CC agglutinating effective amount, optionally with an adjuvant.
 CC
 XX Sequence 36 AA;
 SQ
 Query Match 100.0%; Score 173; DB 19; Length 36;
 Best Local Similarity 100.0%; Pred. No. 5,3e-18;
 Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 VEKNITVTASVDPPTIDLLQADGSLPSAVALTYSPA 36
 Db 1 VEKNITVTASVDPPTIDLLQADGSLPSAVALTYSPA 36
 RESULT 3
 AAM09420
 ID AAM09420 standard; peptide; 37 AA.
 XX
 AC AAM09420;
 XX
 DT 25-JUL-1997 (first entry)
 XX
 DE Immunogenic peptide against E. coli CS4-CFA/I.
 XX
 KM Immunisation; fimbrial protein; colonisation factor antigen;
 KM antibody.
 XX
 OS Escherichia coli.
 OS Synthetic.
 XX
 FH Key Location/Qualifiers
 FT Disulfide-bond 1 /note="The cysteine residue was added to the
 FT consensus peptide to allow bonding with
 FT iodocetylalated albumin or toxoid, providing
 FT conjugated proteins"
 FT Peptide 2..37 /label= Consensus_sequence
 FT
 PN WO9638171-A1.
 XX
 PD 05-DEC-1996.
 XX
 PF 03-JUN-1996; 96WO-US08730.
 XX
 PR 02-JUN-1995; 95US-0460617.
 XX
 PA (USSA) US DEPT OF THE ARMY.
 XX
 PI Anderson J, Carter JM, Cassels F;
 PI WPI; 1997-034101/03.
 DR
 XX New consensus peptide from fimbrial proteins of the E. coli family
 XX CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
 XX against infection by bacteria of this family
 XX
 PS Claim 2; Page 11; 17pp; English.
 XX
 CC A consensus sequence was constructed from the highly conserved
 CC N-terminal region of fimbrial proteins from CFA/I, CS1, CS2, CS4,
 CC CS17 and PCF 0166, and was shown to generate antibodies against
 CC all members of the family. The consensus sequence also contains
 CC both B and T cell epitopes. The present sequence represents the
 CC consensus sequence with a cysteine residue at the N-terminus of
 CC the peptide to allow conjugated peptides to be produced. This allows
 CC greater increases in antigenicity when used to immunise against
 CC disease caused by enterotoxigenic E. coli of the family CS4-CFA/I.
 CC Also antibodies raised against the E. coli CS4-CFA/I family can be

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OM protein - protein search, using sw model

Run on: January 3, 2003, 13:01:31 ; Search time 49.3043 Seconds
(without alignments)
97.294 Million cell updates/sec

Title: US-09-801-784A-1

Perfect score: 173

Sequence: 1 VEKNITVTSVDPTIDLIQAGSALPSAVALTYSPA 36

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

ched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_101002.*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	173	100.0	36	AAW17903	Immunogenic consen
2	173	100.0	36	AAW53307	CS4-CFA/I family s
3	173	100.0	37	AAW09420	Immunogenic peptid
4	173	100.0	37	AAW48316	Escherichia coli f
5	173	100.0	38	AAW06210	Escherichia coli c
6	168	97.1	37	AAW24221	Peptide fragment f
7	167	96.5	36	AAW17904	Immunogenic consen
8	160	92.5	167	AAW50340	ETEC CS4 pilus Csa
9	157	90.8	37	AAW24223	Peptide fragment f
10	157	90.8	37	AAW17907	Peptide CS4 from d

11	157	90.8	117	18	AAW17913	Peptide CS4 from d
12	155	89.6	37	18	AAW17905	Peptide CFA/I from
13	155	89.6	147	18	AAW17911	Peptide CFA/I from
14	155	89.6	170	19	AAW38341	E. coli coloniat i
15	153	88.4	37	18	AAW24222	Peptide fragment f
16	153	88.4	37	18	AAW17906	Peptide CS1 from d
17	153	88.4	148	18	AAW17912	Peptide CS1 from d
18	153	88.4	171	13	AAW21313	Sequence of a majo
19	147	85.0	51	18	AAW17915	Peptide PCF0166 f
20	138	79.8	40	18	AAW17916	Peptide CS2 from d
21	138	79.8	170	20	AAW22324	Pilin protein Cnra
22	136	78.6	36	18	AAW17908	Peptide CS17 from
23	136	78.6	40	18	AAW17914	Peptide CS17 from
24	130	75.1	36	18	AAW24224	Peptide fragment f
25	113	65.3	191	22	AAW45917	S. enterica serova
26	112	64.7	25	18	AAW24225	Peptide fragment f
27	112	64.7	25	18	AAW17909	Peptide PCF0166 f
28	86	49.7	20	18	AAW17910	Peptide CS2 from d
29	78	45.1	20	18	AAW24226	Peptide fragment f
30	77	44.5	16	19	AAW53302	CS4-CFA/I family s
31	72	41.6	15	19	AAW53304	CS4-CFA/I family s
32	68	39.3	14	19	AAW53305	CS4-CFA/I family s
33	62	35.8	13	19	AAW53306	CS4-CFA/I family s
34	57	32.9	12	19	AAW53303	CS4-CFA/I family s
35	56.5	32.7	314	22	ABG30280	Novel human diagn
36	56.5	32.7	580	11	AAW07448	Glutaryl transpept
37	56.5	32.7	580	15	AAW62024	Mutant gamma-gluta
38	56	32.4	13	17	AAW95170	Influenza colonisa
39	54	31.2	517	23	AAW17563	Human pancreatic t
40	54	31.2	520	23	AAW17561	Human pancreatic t
41	54	31.2	521	21	AAW42819	Human ORFX ORF2583
42	52	30.1	118	22	ABW70113	Drosophila melanog
43	52	30.1	740	22	AAW34783	E. coli cellular p
44	51.5	29.8	1560	10	AAW94145	S. cremoris protei
45	51.5	29.8	2042	19	AAW56319	Haemophilus paraga

ALIGNMENTS

RESULT 1
AAW17903
ID AAW17903 standard; peptide; 36 AA.
AC AAW17903;
DT 25-JUN-1997 (first entry)
XX Immunogenic consensus peptide against E.coli CS4-CFA/1.
DE Immunisation; fimbrial protein; colonisation factor antigen;
KW antibody.
XX Escherichia coli.
OS Synthetic.
XX WO9638171-A1.
PN 05-DEC-1996.
PD 03-JUN-1996; 96WO-US08730.
PF 02-JUN-1995; 95US-0460617.
PR (USSA) US DEPT OF THE ARMY.
PA Anderson J, Carter JM, Cassels F;
PI WPI; 1997-034101/03.
DR New consensus peptide from fimbrial proteins of the E. coli family
XX CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family

CC used as diagnostic reagents to identify antigens.

XX Sequence 37 AA;

Query Match 100.0%; Score 173; DB 18; Length 37;

Best Local Similarity 100.0%; Pred. No. 5.4e-18;

Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

YY 1 VEKNITVTASVDPPTIDLLQADGSALPSAVALTYSPA 36

DB 2 VEKNITVTASVDPPTIDLLQADGSALPSAVALTYSPA 37

RESULT 4

AAW48316 standard; peptide; 37 AA.

XX AAW48316;

02-JUL-1998 (first entry)

DE Escherichia coli family CS4-CFA/I immunogen consensus peptide.

KM Monoclonal antibody; agglutinate; Escherichia coli; prophylaxis;

KW CS4-CFA/I family protein; diarrhoea.

OS Synthetic.

OS Escherichia coli.

PN MO9805687-A1.

PD 12-FEB-1998.

PF 01-AUG-1997; 97MO-US13477.

PR 02-AUG-1996; 96US-0023075.

PA (USSA) US DEPT OF THE ARMY.

PA (VIRI-) VIRION SYSTEMS INC.

PI Cassels F, Lees A, Schuman R;

DR WPI; 1998-14553/13.

PT Monoclonal antibody agglutinating Escherichia coli with CS4-CFA/I

XX family protein - is useful in assays and for treatment or

XX prophylaxis against illness arising from infection with E. coli

XX bearing CS4-CFA/I family proteins

XX Disclosure; Page 3; 14pp; English.

XX The present sequence represents an Escherichia coli family CS4-CFA/I

XX immunogen consensus peptide. The present invention describes a new

XX monoclonal antibody which binds exclusively and specifically to SAVALTYS,

XX agglutinates bacteria bearing CS4-CFA/I family proteins and is produced

XX by hybridoma 96-109F8B RH1. The monoclonal antibody can agglutinate

XX members of the Escherichia coli family CS4-CFA/I, since it was raised to

XX a consensus peptide known to raise antibodies against proteins of all

XX the CS4-CFA/I family. E. coli causing diarrhoea are grouped into five

XX classes, of which enterotoxigenic (ETEC), to which the CS4-CFA/I family

XX belong, are the most common and pose the greatest risk to travellers.

XX ETEC E. coli cause high infant mortality and illness in adult travellers

XX in developing countries. The antibody is useful in assays to detect/

XX identify organisms bearing CS4-CFA family proteins, by contacting

XX cultures of organisms for sufficient time for interaction, and

XX determining whether a CS4-CFA/I family protein/antibody complex has

XX formed. It can be included in compositions with a carrier appropriate

XX for application to bacteria-containing growth media, optionally with a

XX tag e.g. a fluorescing agent or colorimetric tag, to assist

XX identification of the complex. It can also be included in compositions

XX with pharmaceutically acceptable carriers, especially saline, useful for

XX treating or prophylaxing against illness arising from infection with

XX bacteria bearing CS4-CFA/I family proteins.

XX Sequence 37 AA;

Query Match 100.0%; Score 173; DB 19; Length 37;

Best Local Similarity 100.0%; Pred. No. 5.4e-18;

Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

YY 1 VEKNITVTASVDPPTIDLLQADGSALPSAVALTYSPA 36

DB 2 VEKNITVTASVDPPTIDLLQADGSALPSAVALTYSPA 37

RESULT 5

AAW48316 standard; peptide; 38 AA.

XX AAW48316;

22-NOV-2000 (first entry)

DE Escherichia coli consensus peptide.

KM E. coli; solid phase conjugate vaccines; bacterial infection;

KW viral infection; parasitic infection; fungal infection; rickettsiae.

OS Escherichia coli.

PN MO200025812-A2.

PD 11-MAY-2000.

PF 29-OCT-1999; 99MO-US25425.

PR 29-OCT-1998; 98US-0106090.

PA (LEES/) LEES A.

PI Lees A;

DR WPI; 2000-365401/31.

PT Preparation of solid phase vaccine for treating viral, bacterial,

XX rickettsiae, and fungal diseases, involves adsorbing protein to solid

XX phase adjuvant and covalently linking carbohydrate to adsorbed protein

XX Example 10; Page 25; 40pp; English.

XX The present sequence is a consensus peptide sequence from Escherichia

XX coli. It was used in the production of solid phase conjugate vaccines,

XX which can be used to treat and produce antibodies against bacterial,

XX viral, parasitic or fungal infections.

XX Sequence 38 AA;

Query Match 100.0%; Score 173; DB 21; Length 38;

Best Local Similarity 100.0%; Pred. No. 5.6e-18;

Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

YY 1 VEKNITVTASVDPPTIDLLQADGSALPSAVALTYSPA 36

DB 2 VEKNITVTASVDPPTIDLLQADGSALPSAVALTYSPA 37

RESULT 6

AAW424221 standard; peptide; 37 AA.

XX AAW424221;

17-MAR-1998 (first entry)

XX Peptide fragment from Escherichia coli CFA/I.

XX T-lymphocyte epitope; diagnosis; antigen; infectious disease;
 KW delayed-type hypersensitivity assay; vaccine development.
 XX Escherichia coli.

OS

FN WO9727462-A2.

XX 31-JUL-1997.

XX 27-JAN-1997; 97WO-US01084.

XX 26-JAN-1996; 96US-0010679.

XX (USSA) US DEPT ARMY GOVERNMENT US ARMY MEDICAL.

XX Brix DL, Sitz KV;

XX WPI; 1997-393814/36.

XX Peptide fragments containing antigen epitope(s) used to trace
 PT diseases - used in a delayed-type hypersensitivity assay, for in
 PT vivo mapping of human T-lymphocyte epitope(s) e.g. for diagnosis,
 PT vaccine development etc

XX Disclosure; Page 10; 14pp; English.

XX Peptides AAW24221-6 from Escherichia coli may be used in the method
 CC of the invention which relates to the tracing of sources of infectious
 CC diseases. The method comprises preparing a short (9-50 amino acid)
 CC peptide containing at least one non-conserved epitope of an organism,
 CC injecting a composition containing the peptide intradermally into a test
 CC subject in a delayed-type hypersensitivity (DTH) assay and observing the
 CC injection site at intervals for induration. The method allows the
 CC T-lymphocyte epitopes of a large antigen to be determined in vivo in
 CC humans. The method is useful in medicine e.g. in diagnosis, monitoring
 CC and treatment design for infectious disease exposure, active autoimmune
 CC disease, allergic diseases and malignancy. It is especially useful for
 CC tracing infectious diseases e.g. HIV, particularly when a sequence is
 CC present only in certain strains of an organism, and developing suitable
 CC vaccines. Vaccinated individuals can also be tested to verify protection
 CC against a particular strain. The method allows in vivo mapping of
 CC T-lymphocyte epitopes, not previously possible. The method is simpler,
 CC more rapid and more sensitive. It can also be applied in a variety of
 CC environments e.g. undeveloped regions since specialist equipment is not
 CC required.

XX Sequence 37 AA;

Query Match 97.1%; Score 168; DB 18; Length 37;
 DE Best Local Similarity 97.2%; Pred. No. 2.9e-17;
 XX Matches 35; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 VEKNITVTASVDPTIDLLQADGSLPSAVALTYSPA 36

DB 1 VEKNITVTASVDPTIDLLQADGSLPSAVALTYSPA 36

RESULT 7

AAW17904

ID AAW17904 standard; peptide; 36 AA.

XX AAW17904;

XX 25-JUL-1997 (first entry)

XX Immunogenic consensus peptide 2 against E.coli CS4-CFA/I.

XX Immunisation; fimbrial protein; colonisation factor antigen;
 KW antibody.

XX Escherichia coli.

OS Synthetic.

XX WO9638171-A1.

XX 05-DEC-1996.

XX 03-JUN-1996; 96WO-US08730.

XX 02-JUN-1995; 95US-0460617.

XX (USSA) US DEPT OF THE ARMY.

XX Anderson J, Carter JM, Cassels F;

XX WPI; 1997-034101/03.

XX New consensus peptide from fimbrial proteins of the E. coli family
 PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
 PT against infection by bacteria of this family

XX Disclosure; Page 3; 17pp; English.

XX The present sequence is consensus peptide 2 sequence that was constructed
 CC from the highly conserved N-terminal region of fimbrial proteins from
 CC CFA/I, CS1, CS2, CS4, CS17 and PCF 0166, and was shown to generate
 CC antibodies against all members of the family. The consensus sequence
 CC also contains both B and T cell epitopes. It can be used to immunise
 CC against diseases caused by enterotoxigenic E. coli of the family CS4-CFA/I.
 CC Also antibodies raised against the E. coli CS4-CFA/I family can be
 CC used as diagnostic reagents to identify antigens.

XX Sequence 36 AA;

Query Match 96.5%; Score 167; DB 18; Length 36;
 DE Best Local Similarity 94.4%; Pred. No. 3.9e-17;
 XX Matches 34; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 VEKNITVTASVDPTIDLLQADGSLPSAVALTYSPA 36

DB 1 VEKNITVTASVDPTIDLLQADGSLPSAVALTYSPA 36

RESULT 8

AAW50340

ID AAW50340 standard; Protein; 167 AA.

XX AAW50340;

XX 18-FEB-2002 (first entry)

XX ETEC CS4 pilus CsaB fimbrial structural protein.

XX CS4 pilus; enterotoxigenic; ETEC; csa operon; CsaB; fimbrial;
 KW vaccine; diarrhoea; antibacterial; anti-diarrheic.

XX Escherichia coli.

XX Key Location/Qualifiers

XX Peptide 1..23

XX Protein 24..167

XX /label= Signal_peptide

XX /label= Mature_protein

XX WO200181582-A2.

XX 01-NOV-2001.

XX 20-APR-2001; 2001WO-US12914.

XX 20-APR-2000; 2000US-198686P.

XX (UYMA-) UNIV MARYLAND BALTIMORE.

XX Altboum Z, Levine MM, Barry EM;

XX MPI; 2002-049280/06.
DR N-PSDB; AAI170760, AAI170780.
XX
XX New nucleotide sequence, useful as immunogenic agent for generating
PT immune response against recombinant product of the operon, comprises
PT csa operon which encodes enterotoxigenic Escherichia coli-CS4 pili
XX
XX Claim 4; Page 50; 81pp; English.
XX
XX The present sequence is that of fimbrial structural protein CsaB
CC of enterotoxigenic Escherichia coli (ETEC) strain E11891A. CsaB is
CC encoded by the csaB gene (see AAI170760) of the E. coli E11891A csa
CC operon. This operon has 5 contiguous genes, csaA-csaE, which encode
CC the synthesis of ETEC-CS4 pili. It has been expressed in attenuated
CC Shigella strain CVD1204 quaba, constructing the Shigella expressing
CC CS4 fimbriae vaccine strain CVD1204 (pGA2-CS4). The CsaB protein
has a calculated mol. wt. of 17343.9 and a theoretical pI of 6.56.
It shares homology with other ETEC fimbriae proteins. Recombinant
CsaA-CsaE polypeptides are used in claimed immunogenic compositions
CC to generate an immune response in a subject. These prevent ETEC
CC colonisation, and hence protect against diarrhoea.
XX
SQ Sequence 167 AA;
Query Match 92.5%; Score 160; DB 23; Length 167;
Best Local Similarity 88.9%; Pred. No. 2.8e-15;
Matches 32; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
QY 1 VEKNITVTASVDPITDILQADGSAIPSAVALTYSPPA 36
DB 24 VEKNITVTASVDPITDILQADGSSLPRAVELTYSPPA 59
RESULT 9
ID AAW24223 standard; peptide; 37 AA.
XX
XX AAW24223;
XX
XX 17-MAR-1998 (first entry)
XX
XX Peptide fragment from Escherichia coli CS4.
XX
XX T-lymphocyte epitope; diagnosis; antigen; infectious disease;
XX delayed-type hypersensitivity assay; vaccine development.
XX
XX Escherichia coli.
XX
XX WO9727462-A2.
XX
XX 31-JUL-1997.
XX
XX 27-JAN-1997; 97WO-US01084.
XX
XX 26-JAN-1996; 96US-0010679.
XX
XX (USSA) US DEPT ARMY GOVERNMENT US ARMY MEDICAL.
XX
XX Brix DL, Sitz KV;
XX
XX MPI; 1997-393814/36.
XX
XX Peptide fragments containing antigen epitope(s) used to trace
PT diseases - used in a delayed-type hypersensitivity assay, for in
PT vivo mapping of human T-lymphocyte epitope(s) e.g. for diagnosis,
XX vaccine development etc
XX
XX Disclosure; Page 10; 14pp; English.
XX
XX Peptide AAW24221-6 from Escherichia coli may be used in the method
CC of the invention which relates to the tracing of sources of infectious
CC diseases. The method comprises preparing a short (9-50 amino acid)

CC peptide containing at least one non-conserved epitope of an organism,
CC injecting a composition containing the peptide intradermally into a test
CC subject in a delayed-type hypersensitivity (DTH) assay and observing the
CC infection site at intervals for induration. The method allows the
CC T-lymphocyte epitopes of a large antigen to be determined in vivo in
CC humans. The method is useful in medicine e.g. in diagnosis, monitoring
CC and treatment design for infectious disease exposure, active autoimmune
CC disease, allergic diseases and malignancy. It is especially useful for
CC tracing infectious diseases e.g. HIV, particularly when a sequence is
CC present only in certain strains of an organism, and developing suitable
CC vaccines. Vaccinated individuals can also be tested to verify protection
CC against a particular strain. The method allows in vivo mapping of
CC T-lymphocyte epitopes, not previously possible. The method is simpler,
CC more rapid and more sensitive. It can also be applied in a variety of
CC environments e.g. undeveloped regions since specialist equipment is not
CC required.
XX
SQ Sequence 37 AA;
Query Match 90.8%; Score 157; DB 18; Length 37;
Best Local Similarity 88.9%; Pred. No. 1.2e-15;
Matches 32; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
QY 1 VEKNITVTASVDPITDILQADGSAIPSAVALTYSPPA 36
DB 1 VEKNITVTASVDPITDILQADGSSLPRAVELTYSPPA 36
RESULT 10
ID AAW17907 standard; peptide; 37 AA.
XX
XX AAW17907;
XX
XX 25-JUL-1997 (first entry)
XX
XX Peptide CS4 from denatured protein subunits of E. coli fimbriae.
XX
XX Immunisation; fimbrial protein; colonisation factor antigen;
XX antibody.
XX
XX Escherichia coli.
XX
XX Synthetic.
XX
XX WO9638171-A1.
XX
XX 05-DEC-1996.
XX
XX 03-JUN-1996; 96WO-US08730.
XX
XX 02-JUN-1995; 95US-0460617.
XX
XX (USSA) US DEPT OF THE ARMY.
XX
XX Anderson J, Carter JM, Cassels F;
XX
XX MPI; 1997-034101/03.
XX
XX New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
XX
XX Disclosure; Page 4; 17pp; English.
XX
XX The present sequence is a peptide from the denatured protein subunit
CC of fimbriae from CS4. Many of the denatured proteins give rise to
CC antibodies that are reactive with proteins of other strains as shown
CC by precipitation studies on nitrocellulose. They are also reactive
CC with surface antigens of the fimbriae as shown by agglutination
CC of organisms. They can be used to immunise against disease caused by
CC enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC to identify antigens.

PF 03-JUN-1996; 96MO-US08730.
XX
RR 02-JUN-1995; 95US-0460617.
XX
PA (USSA) US DEPT OF THE ARMY.
XX
PI Anderson J, Carter JM, Cassels F;
XX WPI: 1997-034101/03.
XX
DR New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
PS
PS Disclosure: Page 4, 17pp; English.

The present sequence is a peptide from the denatured protein subunit
of fimbriae from CFA/I. Many of the denatured proteins give rise to
antibodies that are reactive with proteins of other strains as shown
by precipitation studies on nitrocellulose. They are also reactive
with surface antigens of the fimbriae as shown by agglutination
of organisms. They can be used to immunise against disease caused by
enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
against the E. coli CS4-CFA/I family can be used as diagnostic reagents
to identify antigens.

Sequence 147 AA;

Query Match 89.6%; Score 155; DB 18; Length 147;
Best Local Similarity 88.9%; Pred No. 1,3e-14;
Matches 32; Conservative 1; Mismatches 3; Indels 0; Gaps 0.

OY 1 VEKNITVTASVDPPTIDLLQADGSAIPSAVALTYSPA 36
| | | | | | | | | | | | | | | | | | |
Dd 1 VEKNITVTASVDPVIDLLQADGNALPSAVKAYSPA 36

RESULT 14
AAW38341
ID AAW38341 standard; Protein; 170 AA.
AC AAW38341;
DT 27-MAR-1998 (first entry)
XX
XX
E. coli colonisation factor antigen CPAI.
Bacterial colonisation; colonisation factor antigen; CFAI;
enterotoxin Escherichia coli; vaccine; diagnosis; research.
Escherichia coli.
US5698416-A.
16-DEC-1997.
02-JUN-1995; 95US-0460739.
02-JUN-1995; 95US-0460739.
(USSA) US SEC OF ARMY.
Bell BA, Cassels FU, Wolf MK;
WPI: 1998-051486/05.
N-PADB; AAT96059.
Production of bacterial colonisation factor protein - by expression
under control of heat-inducible promoter
Example 2; Columns 15-18; 11pp; English.
Production of a protein that affects bacterial colonisation,

```

CC  comprises inoculating a broth containing tryptone and yeast extract
CC  with enteric bacteria containing a DNA sequence encoding the
CC  protein under the control of a temperature regulated promoter,
CC  culturing the bacteria, removing the bacteria from the medium and
CC  recovering the protein. The method is used especially for producing
CC  the colonisation factor antigen CPA of enterotoxigenic E. coli, i.e.
CC  the antigen denoted by the present sequence, which may be used in
CC  vaccines or for diagnostic or research purposes. Growing the
CC  bacteria at low temperature until the late logarithmic phase
CC  increases the yield of the protein.
CC
XX  Sequence      170 AA;
SQ
CC
CC  Query Match      89.6%; Score 155; DB 19; Length 170;
CC  Best Local Similarity      89.9%; Pred. No. 1,56-14;
CC  Matches      32; Conservative      1; Mismatches      3; Indels      0; Gaps      0;
CC
CC      1 VEKNITVAVSDPRTDLQADGNALPSAVALTYSFA 36
CC      ||||| ||||| ||||| ||||| ||||| |||||
CC  Db      24 VEKNITVAVSDPVIDLQADGNALPSAVKLATYSFA 59
CC
CC  RESULT 15
CC  AAM24222
CC  ID      AAM24222 standard; peptide: 37 AA.
CC  XX
CC  AC      AAM24222;
CC  XX
CC  DT      17-MAR-1998 (first entry)
CC  XX
CC  DE      Peptide fragment from Escherichia coli C51.
CC  XX
CC  KW      T-lymphocyte epitope; diagnosis; antigen; infectious disease;
CC  RM      delayed-type hypersensitivity assay; vaccine development.
CC  XX
CC  OS      Escherichia coli.
CC  XX
CC  PN      MO9727462-A2.
CC  XX
CC  PD      31-JUL-1997.
CC  XX
CC  PF      27-JAN-1997; 97MO-USO1084.
CC  XX
CC  PR      26-JAN-1996; 96US-0010679.
CC  XX
CC  PA      (USSA ) US DEPT ARMY GOVERNMENT US ARMY MEDICAL.
CC  PI      Brix DL, Sitz KV;
CC  DR      WPI; 1997-393814/36.
CC  XX
CC  PT      Peptide fragments containing antigen epitope(s) used to trace
CC  PT      diseases - used in a delayed-type hypersensitivity assay; for in
CC  PT      vivo mapping of human T-lymphocyte epitope(s) e.g. for diagnosis,
CC  PT      vaccine development etc
CC  PS
CC  PS      Disclosure; Page 10; 14pp; English.
CC  XX
CC  CC      Peptides AAM24221-6 from Escherichia coli may be used in the method
CC  CC      of the invention which relates to the tracing of sources of infectious
CC  CC      diseases. The method comprises preparing a short (9-50 amino acid)
CC  CC      peptide containing at least one non-conserved epitope of an organism,
CC  CC      injecting a composition containing the peptide intradermally into a test
CC  CC      subject in a delayed-type hypersensitivity (DTH) assay and observing the
CC  CC      infection site at intervals for induration. The method allows the
CC  CC      T-lymphocyte epitopes of a large antigen to be determined in vivo in
CC  CC      humans. The method is useful in medicine e.g. in diagnosis, monitoring
CC  CC      and treatment design for infectious disease exposure, active autoimmune
CC  CC      disease, allergic diseases and malignancy. It is especially useful for
CC  CC      tracing infectious diseases e.g HIV, particularly when a sequence is
CC  CC      present only in certain strains of an organism, and developing suitable
CC  CC      vaccines. Vaccinated individuals can also be tested to verify protection
CC  CC      against a particular strain. The method allows in vivo mapping of

```

CC T-lymphocyte epitopes, not previously possible. The method is simpler,
 CC more rapid and more sensitive. It can also be applied in a variety of
 CC environments e.g. undeveloped regions since specialist equipment is not
 CC required.

XX Sequence 37 AA;

Query Match 88.4%; Score 153; DR 18; Length 37;
 Best Local Similarity 83.3%; Pred. No. 4.4e-15;
 Matches 30; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

QY 1 VEKNITVTASVDPTIDLLQDGSALPSAVALTYSPA 36
 |||:|||||:|||||:|||||:|||||
 Db 1 VEKTIISVTASVDPTVDLLQSDGSALPNSVALTYSPA 36

RESULT 16

AAW17906
 ID AAW17906 standard; peptide; 37 AA.

XX AC AAW17906;

XX DT 25 JUL-1997 (first entry)

XX DE Peptide CSI from denatured protein subunits of E.coli fimbriae.
 XX KW Immunisation; fimbrial protein; colonisation factor antigen;
 XX KW antibody.

XX OS Escherichia coli.

XX OS Synthetic.

XX PN WO9638171-A1.

XX PD 05 DEC 1996.

XX PF 03-JUN-1996; 96WO-US08730.

XX PR 02 JUN-1995; 95US-0460617.

XX PA (USSA) US DEPT OF THE ARMY.

XX PI Anderson J, Carter JM, Cassels F;

XX DR WPI; 1997-034101/03.

XX PT New consensus peptide from fimbrial proteins of the E. coli family
 PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
 PT against infection by bacteria of this family

XX PS Disclosure; Page 4; 17pp; English.

CC The present sequence is a peptide from the denatured protein subunit
 CC of fimbriae from CSI. Many of the denatured proteins give rise to
 CC antibodies that are reactive with proteins of other strains as shown
 CC by precipitation studies on nitrocellulose. They are also reactive
 CC with surface antigens of the fimbriae as shown by agglutination
 CC of organisms. They can be used to immunise against disease caused by
 CC enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
 CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents
 CC to identify antigens.

XX Sequence 37 AA;

Query Match 88.4%; Score 153; DR 18; Length 37;
 Best Local Similarity 83.3%; Pred. No. 4.4e-15;
 Matches 30; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

QY 1 VEKNITVTASVDPTIDLLQDGSALPSAVALTYSPA 36
 |||:|||||:|||||:|||||:|||||
 Db 1 VEKTIISVTASVDPTVDLLQSDGSALPNSVALTYSPA 36

RESULT 17

AAW17912

ID AAW17912 standard; peptide; 148 AA.

XX AC AAW17912;

XX DT 25-JUL-1997 (first entry)

XX DE Peptide CSI from denatured protein subunits of E.coli fimbriae.

XX KW Immunisation; fimbrial protein; colonisation factor antigen;

XX KW antibody.

XX OS Escherichia coli.

XX OS Synthetic.

XX PN WO9638171-A1.

XX PD 05-DEC-1996.

XX PF 03-JUN-1996; 96WO-US08730.

XX PR 02-JUN-1995; 95US-0460617.

XX PA (USSA) US DEPT OF THE ARMY.

XX PI Anderson J, Carter JM, Cassels F;

XX DR WPI; 1997-034101/03.

XX PT New consensus peptide from fimbrial proteins of the E. coli family
 PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
 PT against infection by bacteria of this family

XX PS Disclosure; Page 4; 17pp; English.

XX CC The present sequence is a peptide from the denatured protein subunit
 CC of fimbriae from CSI. Many of the denatured proteins give rise to
 CC antibodies that are reactive with proteins of other strains as shown
 CC by precipitation studies on nitrocellulose. They are also reactive
 CC with surface antigens of the fimbriae as shown by agglutination
 CC of organisms. They can be used to immunise against disease caused by
 CC enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
 CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents
 CC to identify antigens.

XX SQ Sequence 148 AA;

Query Match 88.4%; Score 153; DR 18; Length 148;
 Best Local Similarity 83.3%; Pred. No. 2.5e-14;
 Matches 30; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

QY 1 VEKNITVTASVDPTIDLLQDGSALPSAVALTYSPA 36

Db 1 VEKTIISVTASVDPTVDLLQSDGSALPNSVALTYSPA 36

RESULT 18

AAAR21313

ID AAR21313 standard; Protein; 171 AA.

XX AC AAR21313;

XX DT 17-MAY-1992 (first entry)

XX DE Sequence of a major CSI pilin antigen of enterotoxigenic

XX DE Escherichia coli encoded by coo A gene.

XX KW Antigen; vaccine; diarrhoea; probe.

XX OS Escherichia coli LMC10.

XX PH Key

Location/Qualifiers

FT Peptide 1..23
 XX /label= signal
 PT WO9201703-A.
 XX
 PD 06-FEB-1992.
 XX
 PF 23-JUL-1991; 91WO-US05217.
 XX
 PR 24-JUL-1990; 90US-0557535.
 XX
 PA (UYEM-) EMORY UNIV.
 XX
 PI Scott JR, Perezcasal J;
 XX WPI; 1992-064882/08.
 DR N-PADB; AAQ20529.
 XX
 SQ Major CSI pilin antigen of enterotoxigenic Escherichia coli -
 with probes binding to DNA encoding the antigen, useful in
 PT diagnosis of enterotoxigenic E.coli and as vaccine
 XX
 PS Example; Fig 2; 31pp; English.
 XX
 CC The inventors claim a DNA sequence (AAQ20529), a vector, transformed
 CC microbe, process, a probe, a vaccine and the major CSI pilin antigen
 CC itself. The vector is selected from the recombinant plasmids pEU600,
 CC pEU605 and pEU452. The host cell is E. coli K12 strain JM83. The
 CC probe comprises the 318 bp internal HhaI digestion prod. of AAQ20529.
 XX
 SQ Sequence 171 AA;
 XX
 Query Match 88.4%; Score 153; DB 13; Length 171;
 Best Local Similarity 83.3%; Pred. No. 3e-14;
 Matches 30; Conservative 5; Mismatches 1; Indels 0; Gaps 0;
 XX
 OY 1 VEKNITVASVDPPTIDLLQADGSAALPSAVALTYSPA 36
 |||||:|||||:|||||:|||||:|||||
 Db 24 VEKTIIVTASVDPPTIDLLQSDGSAALPSAVALTYSPA 59
 XX
 RESULT 19
 AAAM17915
 ID AAAM17915 standard; peptide; 51 AA.
 XX
 AC AAAM17915;
 XX
 DE 25-JUL-1997 (first entry)
 XX
 DE Peptide PCF0166 from denatured protein subunits of E.coli fimbriae.
 XX
 KW Immunisation; fimbrial protein; colonisation factor antigen;
 KW antibody.
 XX
 OS Escherichia coli.
 OS Synthetic.
 XX
 FH Key location/Qualifiers
 FT Misc-difference 47 /label= Not_defined
 XX
 PN WO9638171-A1.
 XX
 PD 05-DEC-1996.
 XX
 PF 03-JUN-1996; 96WO-US08730.
 XX
 PR 02-JUN-1995; 95US-0460617.
 XX
 PA (USSA) US DEPT OF THE ARMY.
 XX
 PI Anderson J, Carter JM, Cassels F;
 XX

DR WPI; 1997-034101/03.
 XX
 XX New consensus peptide from fimbrial proteins of the E. coli family
 PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
 PT against infection by bacteria of this family
 XX
 PS Disclosure; Page 4; 17pp; English.
 XX
 CC The present sequence is a peptide from the denatured protein subunit
 CC of fimbriae from PCF0166. Many of the denatured proteins give rise to
 CC antibodies that are reactive with proteins of other strains as shown
 CC by precipitation studies on nitrocellulose. They are also reactive
 CC with surface antigens of the fimbriae as shown by agglutination
 CC of organisms. They can be used to immunise against disease caused by
 CC enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
 CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents
 CC to identify antigens.
 XX
 SQ Sequence 51 AA;
 XX
 Query Match 85.0%; Score 147; DB 18; Length 51;
 Best Local Similarity 85.7%; Pred. No. 4.9e-14;
 Matches 30; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 XX
 OY 1 VEKNITVASVDPPTIDLLQADGSAALPSAVALTYSP 35
 |||||:|||||:|||||:|||||:|||||
 Db 1 VEKNITVASVDPPTIDLLQADGSAALPTAVDLYLP 35
 XX
 RESULT 20
 AAAM17916
 ID AAAM17916 standard; peptide; 40 AA.
 XX
 AC AAAM17916;
 XX
 DE 25-JUL-1997 (first entry)
 XX
 DE Peptide CS2 from denatured protein subunits of E.coli fimbriae.
 XX
 KW Immunisation; fimbrial protein; colonisation factor antigen;
 KW antibody.
 XX
 OS Escherichia coli.
 OS Synthetic.
 XX
 PN WO9638171-A1.
 XX
 PD 05-DEC-1996.
 XX
 PF 03-JUN-1996; 96WO-US08730.
 XX
 PR 02-JUN-1995; 95US-0460617.
 XX
 PA (USSA) US DEPT OF THE ARMY.
 XX
 PI Anderson J, Carter JM, Cassels F;
 XX
 DR WPI; 1997-034101/03.
 XX
 XX New consensus peptide from fimbrial proteins of the E. coli family
 PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
 PT against infection by bacteria of this family
 XX
 PS Disclosure; Page 4; 17pp; English.
 XX
 CC The present sequence is a peptide from the denatured protein subunit
 CC of fimbriae from CS2. Many of the denatured proteins give rise to
 CC antibodies that are reactive with proteins of other strains as shown
 CC by precipitation studies on nitrocellulose. They are also reactive
 CC with surface antigens of the fimbriae as shown by agglutination
 CC of organisms. They can be used to immunise against disease caused by
 CC enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
 CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents

CC to identify antigens.

XX
SQ Sequence 40 AA;

Query Match 79.8%; Score 138; DB 18; Length 40;
Best Local Similarity 79.4%; Pred. No. 7.5e-13;
Matches 27; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

QY 2 EKNITVTASVDPTIDLLQDGSALPSAVALTYSP 35
|||||:|||||:|||||:|||||:|||||:|
Db 2 EKNITVTASVDPTIDLLQDGSALPSAVALTYSP 35

RESULT 21

AAW22324
ID AAW22324 standard; Protein; 170 AA.

XX AAW22324;

XX 22-SEP 1999 (first entry)

XX Pilin protein CotA.

XX CS2 gene cluster; CotA; CotB; CotC; CotD; pilin protein; immunogen;
KW enterotoxigenic E. coli; human upper intestine; diarrhoeal disease;
KW enteric infection; therapy.

XX Escherichia coli.

XX US93215; A.

XX 03 AUG 1999.

XX 07-JUN 1995; 95US-0483101.

XX 07-JUN-1995; 95US-0483101.

XX (UYEM-) UNIV EMORY.

XX Caron J, Froehlich B, Scott JR;

XX WPI; 1999-443623/37.

XX N-PSDB; AAXH4948.

XX Isolated nucleic acids encoding Escherichia coli CS2 pilin proteins
PT useful for vaccinating against diarrhoeal diseases caused by

PT Escherichia coli

XX Claim 1; Column 39-40; 35pp; English.

XX This sequence represents a CS2 pilin protein of the invention, encoded by
CC (which also encodes CotB, CotC, and CotD). CS2 pilins are long
CC proteinaceous molecules thought to mediate attachment of enterotoxigenic
CC E. coli (ETEC) to and/or promote colonisation of the human upper
CC intestine. The CS2 gene cluster may be used to produce immunogens for
CC vaccinating patients against diarrhoeal diseases caused by ETEC bacteria.
CC This type of enteric infection is a major cause of death among infants in
CC developing countries and in immunocompromised (e.g. Acquired Immune
CC Deficiency Syndrome (AIDS)) or elderly adults. The vaccine comprises more
CC than 1 antigenic determinant (epitopes) from more than 1 pilus type to be
CC effective against more than 1 type of ETEC infection.

XX Sequence 170 AA;

Query Match 79.8%; Score 138; DB 20; Length 170;
Best Local Similarity 79.4%; Pred. No. 4.5e-12;
Matches 27; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

QY 2 EKNITVTASVDPTIDLLQDGSALPSAVALTYSP 35
|||||:|||||:|||||:|||||:|||||:|
Db 2 EKNITVTASVDPTIDLLQDGSALPSAVALTYSP 58

RESULT 22

AAW17908
ID AAW17908 standard; peptide; 36 AA.

XX AAW17908;

XX 25-JUL-1997 (first entry)

XX Peptide CS17 from denatured protein subunits of E.coli fimbriae.
XX Immunisation; fimbrial protein; colonisation factor antigen;
KW antibody.

XX Escherichia coli.

XX Synthetic.

XX WO9638171-A1.

XX 05-DEC-1996.

XX 03-JUN-1996; 96WO-US08730.

XX 02-JUN-1995; 95US-0460617.

XX (USSA) US DEPT OF THE ARMY.

XX Anderson J, Carter JM, Cassels P;

XX WPI; 1997-034101/03.

XX New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family

XX Disclosure; Page 4; 17pp; English.

XX The present sequence is a peptide from the denatured protein subunit
CC of fimbriae from CS17. Many of the denatured proteins give rise to
CC antibodies that are reactive with proteins of other strains as shown
CC by precipitation studies on nitrocellulose. They are also reactive
CC with surface antigens of the fimbriae as shown by agglutination
CC of organisms. They can be used to immunise against disease caused by
CC enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC to identify antigens.

XX Sequence 36 AA;

Query Match 78.6%; Score 136; DB 18; Length 36;
Best Local Similarity 75.0%; Pred. No. 1.3e-12;
Matches 27; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 VEKNITVTASVDPTIDLLQDGSALPSAVALTYSPA 36
|||||:|||||:|||||:|||||:|||||:|

Db 1 VEKNITVTASVDPKDLLODGLSLPDSIALTYSPA 36
|||||:|||||:|||||:|||||:|||||:|

RESULT 23

AAW17914
ID AAW17914 standard; peptide; 40 AA.

XX AAW17914;

XX 25-JUL-1997 (first entry)

XX Peptide CS17 from denatured protein subunits of E.coli fimbriae.
XX Immunisation; fimbrial protein; colonisation factor antigen;
KW antibody.

XX Escherichia coli.

XX Synthetic.

```

FH Key Location/Qualifiers
FT Misc-difference 35
FT /label= Not_defined
FT Misc-difference 37
FT /label= Not_defined
FT Misc-difference 38
FT /label= Not_defined
FT Misc-difference 39
FT /label= Not_defined
PN WO9638171-A1.
PD 05-DEC-1996.
PF 03-JUN-1996; 96WO-US08730.
PR 02-JUN-1995; 95US-0460617.
(USSA ) US DEPT OF THE ARMY.
PI Anderson J, Carter JM, Casseis F;
DR MPI; 1997-034101/03.
XX New consensus peptide from fimbrial proteins of the E. coli family
PT CS4-CFA/I - and denatured fimbrial proteins, used for immunisation
PT against infection by bacteria of this family
XX
PS Disclosure; Page 4; 17pp; English.
XX
XX The present sequence is a peptide from the denatured protein subunit
CC of fimbriae from CS17. Many of the denatured proteins give rise to
CC antibodies that are reactive with proteins of other strains as shown
CC by precipitation studies on nitrocellulose. They are also reactive
CC with surface antigens of the fimbriae as shown by agglutination
CC of organisms. They can be used to immunise against disease caused by
CC enterotoxigenic E. coli of the family CS4-CFA/I. Also antibodies raised
CC against the E. coli CS4-CFA/I family can be used as diagnostic reagents
CC to identify antigens.
XX
SQ Sequence 40 AA;
Query Match 78.6%; Score 136; DB 18; Length 40;
Best Local Similarity 75.0%; Pred. No. 1.5e-12;
Matches 27; Conservative 5; Mismatches 4; Indels 0; Gaps 0;
1 VEKNITVTASVDPPTDILQADGSAIPSAVALTYSVA 36
1 VEKNITVTASVDPKLDLQADGTSIPDSIALTYSXA 36
RESULT 24
AAW4224
ID AAW4224 standard; peptide; 36 AA.
AC AAW4224;
XX
XX 17-MAR-1998 (first entry)
DE Peptide fragment from Escherichia coli CS17.
XX
XX T-lymphocyte epitope; diagnosis; antigen; infectious disease;
KM delayed-type hypersensitivity assay; vaccine development.
XX
OS Escherichia coli.
XX
XX WO9727462-A2.
XX
XX 31-JUL-1997.
PD
XX
XX 27-JUN-1997; 97WO-US01084.
PF
XX
XX 26-JAN-1996; 96US-0010679.

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XX
XX (USSA ) US DEPT ARMY GOVERNMENT US ARMY MEDICAL.
PA Brix DL, Sltz KV;
XX
XX MPI; 1997-393814/36.
DR
XX
XX Peptide fragments containing antigen epitope(s) used to trace
PT diseases - used in a delayed-type hypersensitivity assay; for in
PT vivo mapping of human T-lymphocyte epitope(s) e.g. for diagnosis,
PT vaccine development etc
XX
XX Disclosure; Page 10; 14pp; English.
PS
XX
XX Peptides AAW4221-6 from Escherichia coli may be used in the method
CC of the invention which relates to the tracing of sources of infectious
CC diseases. The method comprises preparing a short (9-50 amino acid)
CC peptide containing at least one non-conserved epitope of an organism,
CC injecting a composition containing the peptide intradermally into a test
CC subject in a delayed-type hypersensitivity (DTH) assay and observing the
CC injection site at intervals for induration. The method allows the
CC T-lymphocyte epitopes of a large antigen to be determined in vivo in
CC humans. The method is useful in medicine e.g. in diagnosis, monitoring
CC and treatment design for infectious disease exposure, active autoimmune
CC disease, allergic diseases and malignancy. It is especially useful for
CC tracing infectious diseases e.g. HIV, particularly when a sequence is
CC present only in certain strains of an organism, and developing suitable
CC vaccines. Vaccinated individuals can also be tested to verify protection
CC against a particular strain. The method allows in vivo mapping of
CC T-lymphocyte epitopes, not previously possible. The method is simpler,
CC more rapid and more sensitive. It can also be applied in a variety of
CC environments e.g. undeveloped regions since specialist equipment is not
CC required.
XX
SQ Sequence 36 AA;
Query Match 75.1%; Score 130; DB 18; Length 36;
Best Local Similarity 75.0%; Pred. No. 9.6e-12;
Matches 27; Conservative 4; Mismatches 5; Indels 0; Gaps 0;
1 VEKNITVTASVDPPTDILQADGSAIPSAVALTYSVA 36
1 VEKNITVTASVDPKLDLQADGTSIPDSIALTYSVA 36
RESULT 25
AAB45917
ID AAB45917 standard; Protein; 191 AA.
AC AAB45917;
XX
XX 23-MAR-2001 (first entry)
DE S. enterica serovar Typhi tcfb fimbrial subunit protein.
XX
XX Fimbrial protein; saf; tcf; vaccine; gene therapy; immunization;
KM tcf insert; detection.
XX
XX Salmomella typhi.
OS
XX
XX WO200073336-A1.
XX
XX 07-DEC-2000.
PD
XX
XX 26-MAY-2000; 2000WO-SE01079.
PF
XX
XX 28-MAY-1999; 99SE-0001961.
PR
XX
XX (ACTI-) ACTIVE BIOTECH AB.
PA
XX
XX Folkeesson A, Normark S, Loeffdahl S;
PI
XX
XX MPI; 2001-061512/07.

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